

# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sub Slope Silicone  
**Product Use Description:** Mastic coating for roofs  
**Manufacturer:** NanoTech Materials, Inc.  
21401 Park Row Drive #360  
Katy, TX 77449  
**Email:** info@nanotechmaterials.com  
**Telephone:** 1-(888) 296-6266

## 2. HAZARDS IDENTIFICATION

### GHS Label Elements

#### Hazard Pictograms:



**Signal Word:** Danger.  
**Hazard Statements:** May cause cancer. Suspected of damaging fertility or the unborn child.

### Hazard Classification

**Flammable Liquids:** Category 0  
**Carcinogenicity:** Category 1A  
**Toxic to Reproduction:** Category 2

### Precautionary Statements

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Response:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Storage:** Store in a well-ventilated place. Keep cool. Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Substance(s) formed under the conditions of use:** Generates methanol during cure.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS number	Content in percent (%) *	Notes
(1) Calcium Carbonate	471-34-1	20 - <50%	# This substance has workplace exposure limit(s).
Titanium, Bis(ethyl acetoacetato)-diisopropoxy	27858-32-8	1 - <5%	No data available.
Octadecanoic acid	57-11-4	1 - <5%	# This substance has workplace exposure limit(s).
(1) QUARTZ	14808-60-7	0.1 - <1%	# This substance has workplace exposure limit(s).
Octamethylcyclotetrasiloxane	556-67-2	0.1 - <1%	No data available.

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. FIRST-AID MEASURES

<b>General information:</b>	No action shall be taken involving any personal risk or without suitable training.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting. Give a glass of water.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.
<b>Skin Contact:</b>	Wash contaminated clothing before reuse. In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.
<b>Eye contact:</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Most important symptoms/effects, acute and delayed</b>	
<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.
<b>Indication of immediate medical attention and special treatment needed</b>	
<b>Treatment:</b>	Treatment is symptomatic and supportive. This product reacts with moisture in the acid contents of the stomach to form methanol.

### 5. FIRE-FIGHTING MEASURES

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
<b>Suitable (and unsuitable) extinguishing</b>	
<b>Suitable extinguishing media:</b>	CO2, dry chemical, foam, water spray, water fog
<b>Unsuitable extinguishing media:</b>	Wear safety glasses with side shields when handling this product.
<b>Hazardous decomposition products:</b>	Not determined.
<b>Special protective equipment and precautions for firefighters</b>	
<b>Special fire-fighting procedures:</b>	No data available

**Special protective equipment for firefighters:**

Wear full protective fire gear including self-containing breathing apparatus operated in the positive pressure mode with full face piece, coat, pants, gloves and boots.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment.

Ventilate area if spilled in confined space or other poorly ventilated areas. Personal Protective Equipment must be worn. See Personal Protection Section for PPE recommendations.

**Methods and material for containment and cleaning up:**

Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed or inert material. Wash area with soap and water. Spilled liquid and dried film are slippery. Use care to avoid falls.

**Environmental Precautions:**

Avoid release to the environment. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:**

Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin and clothing. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate Personal Protective Equipment. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse.

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing mist or vapors. When using, do not eat, drink or smoke. Stir well before use. Keep containers closed when not in use. Minimize contact with air to reduce contamination with mold, fungus, or other organisms which could cause decomposition or spoilage.

Wash thoroughly after handling.

**Conditions for Safe Storage:**

Store in a cool dry place. Keep container(s) closed.

**Maximum Storage Temperature:**

Not determined.

**Conditions for Safe Storage, Including Any Incompatibilities:**

Store away from incompatible materials. See section 10 for incompatible materials. Keep from freezing. Do not store in open, unlabeled or mislabeled containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
(1) Calcium Carbonate - Total	REL	10 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
(1) Calcium Carbonate - Respirable.	REL	5 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
(1) Calcium Carbonate - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

(1) Calcium Carbonate - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
(1) Calcium Carbonate - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
(1) Calcium Carbonate - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Octadecanoic acid	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2015)
(1) QUARTZ - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2015)
(1) QUARTZ - Respirable dust.	REL	0.05 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
(1) QUARTZ - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
(1) QUARTZ	PEL	0.05 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Octamethylcyclotetrasiloxane	TWA	5 ppm	

**Appropriate Engineering Controls:** Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**General information:** Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non- routine or emergency situations.

**Eye/face protection:** Monogoggles

**Skin Protection**

**Hand Protection:** Chemical resistant gloves

**Other:** Wear rubber apron. Wear suitable protective clothing and eye/face protection.

**Respiratory Protection:** If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** liquid

**Form:** liquid

**Color:** Various

<b>Odor:</b>	Alcohol
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	not applicable
<b>Melting point/freezing point:</b>	not applicable
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	Not Applicable
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits:</b>	None established
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Heat of combustion:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	1.30
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Log Pow:</b>	
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	No data available.
<b>VOC:</b>	24 g/l

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	Hazardous polymerisation does not occur
<b>Conditions to Avoid:</b>	No data available.
<b>Incompatible Materials:</b>	No data available.

**Hazardous Decompositions Products:** Carbon oxides Oxides of silicon. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

### Symptoms related to the physical, chemical and toxicological characteristics

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

### Information on toxicological effects

#### Oral

**Product:** Not classified for acute toxicity based on available data.  
Specified substance(s)  
Octadecanoic acid: LD 50 (Rat, No data available.): > 2,000 mg/kg  
Octamethylcyclotetrasiloxane: LD 50 (Rat): 4,800 mg/kg

#### Dermal

**Product:** Not classified for acute toxicity based on available data.  
Specified substance(s):  
Octamethylcyclotetrasiloxane: LD 50 (Rat): > 2,400 mg/kg

#### Inhalation

**Product:** Not classified for acute toxicity based on available data.  
Specified substance(s)  
Octamethylcyclotetrasiloxane: LC50 (Rat): 36 mg/l

#### Repeated dose toxicity

**Product:** No data available.

#### Skin Corrosion/Irritation

**Product:** No data available.

#### Serious Eye Damage/Eye Irritation

**Product:** No data available.

#### Respiratory or Skin Sensitization

**Product:** No data available.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

**Product:** No data available.  
(1) QUARTZ: Overall evaluation: 1. Carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens**

(1) QUARTZ: Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available

Specified substance(s)

Octamethylcyclotetrasiloxane: Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)  
Mouse Lymphoma Assay (OECD Guidline 476): negative (not mutagenic)

**In vivo**

**Product:** No data available

Specified substance(s)

Octamethylcyclotetrasiloxane: Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

Specified substance(s)

Octamethylcyclotetrasiloxane:

Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/kg/day,14 days), developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well- documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation), with D4. Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

## 12. ECOLOGICAL INFORMATION

### Fish

<b>Product:</b>	No data available.
Specified substance(s)	
Octadecanoic acid:	LC0 (Brachydanio rerio, 96 h): > 100 mg/l LC0 (Leuciscus idus, 96 h): > 100 mg/l

### Aquatic Invertebrates

<b>Product:</b>	No data available.
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### Chronic hazards to the aquatic environment

#### Fish

<b>Product:</b>	No data available.
Specified substance(s)	
Octadecanoic acid:	LC0 (Brachydanio rerio, 4 d): > 100 mg/l LC0 (Leuciscus idus, 4 d): > 100 mg/l

### Aquatic Invertebrates

<b>Product:</b>	No data available.
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### Toxicity to Aquatic Plants

<b>Product:</b>	No data available.
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### Persistence and Degradability

#### Biodegradation

<b>Product:</b>	No data available.
Specified substance(s)	
Octamethylcyclotetrasiloxane:	3.7 % (29 d, 310 Ready Biodegradability - CO <sub>2</sub> in Sealed Vessels (Headspace Test)) Not readily biodegradable.

#### BOD/COD Ratio

<b>Product:</b>	No data available.
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#### Bioaccumulative potential

##### Bioconcentration Factor (BCF)

<b>Product:</b>	No data available.
Specified substance(s)	
Octamethylcyclotetrasiloxane:	Fathead Minnow, Bioconcentration Factor (BCF): 12.40

#### Partition Coefficient n-octanol / water (log Kow)

<b>Product:</b>	No data available.
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#### Mobility in soil:

Known or predicted distribution to environmental compartments

(1) Calcium Carbonate:	No data available.
Titanium, Bis(ethyl acetoacetato)-diispropoxy:	No data available.
Octadecanoic acid:	No data available.
(1) QUARTZ:	No data available.
Octamethylcyclotetrasiloxane:	No data available.

#### Other adverse effects:

No data available.

## 13. DISPOSAL CONSIDERATIONS

<b>General information:</b>	The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.
<b>Disposal instructions:</b>	Disposal should be made in accordance with federal, state and local regulations.
<b>Contaminated Packaging:</b>	Dispose of as unused product.

## 14. TRANSPORT INFORMATION

#### DOT

<b>UN Number:</b>	None
<b>UN Proper Shipping Name:</b>	None
<b>Transport Hazard Class(es)</b>	
<b>Class:</b>	None

**Label(s):** NONE  
**IMDG:** Not regulated.  
**IATA:** Not regulated.

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
None present or none present in regulated quantities.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**  
None present or none present in regulated quantities.
- **Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories**  
Delayed (Chronic) Health Hazard
- **SARA 302 Extremely Hazardous Substance**  
None present or none present in regulated quantities.
- **SARA 304 Emergency Release Notification**  
None present or none present in regulated quantities.
- **SARA 311/312 Hazardous Chemical**

Chemical Identity	Threshold Planning Quantity
(1) Calcium Carbonate	10000 lbs
Titanium, Bis(ethyl acetoacetato)-diisopropoxy	10000 lbs
Octadecanoic acid	10000 lbs
(1) QUARTZ	10000 lbs
Octamethylcyclotetrasiloxane	10000 lbs

- **SARA 313 (TRI Reporting)**  
None present or none present in regulated quantities.
- **Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**  
None present or none present in regulated quantities.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**  
None present or none present in regulated quantities.

### US State Regulations

- **US. California Proposition 65**  
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

(1) TITANIUM DIOXIDE	Carcinogenic.
(1) QUARTZ	Carcinogenic.
Methanol	Maximum Allowable Dose Level (MADL): 47000 µg/day. Developmental toxin.

- **US. New Jersey Worker and Community Right-to-Know Act**

#### Chemical Identity

Siloxanes and Silicones, di-Me hydroxy terminated

(1) Calcium Carbonate

Decamethylcyclopentasiloxane

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl) -, reaction products with ammonia, octamethylcyclotetrasiloxane and silica

Methyltrimethoxysilane

(1) TITANIUM DIOXIDE

(1) QUARTZ

Octamethylcyclotetrasiloxane

- **US. Massachusetts RTK - Substance List**  
 Chemical Identity  
 (1) Calcium Carbonate  
 (1) QUARTZ
- **US. Pennsylvania RTK - Hazardous Substances**  
 Chemical Identity  
 (1) Calcium Carbonate
- **US. Rhode Island RTK**  
 No ingredient regulated by RI Right-to-Know Law present.

**Inventory Status**

Australia AICS	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List	Not in compliance with the inventory.	Remarks: None.
EINECS, ELINCS or NLP	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List	Not in compliance with the inventory.	Remarks: None.
China Inv. Existing Chemical Substances	Not in compliance with the inventory.	Remarks: None.
Korea Existing Chemicals Inv. (KECI)	Not in compliance with the inventory.	Remarks: None.
Canada NDSL Inventory	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS	Not in compliance with the inventory.	Remarks: None.
US TSCA Inventory	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals	Not in compliance with the inventory.	Remarks: None.
Taiwan Chemical Substance Inventory	Not in compliance with the inventory.	Remarks: None.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**HMIS Hazard ID**



Hazard rating:  
 0 – Minimal  
 1 – Slight  
 2 – Moderate  
 3 – Serious  
 4 – Severe \*Chronic health effect

**Issue Date:** 09/19/2017  
**Version #:** 1.0  
**Further Information:** No data available.